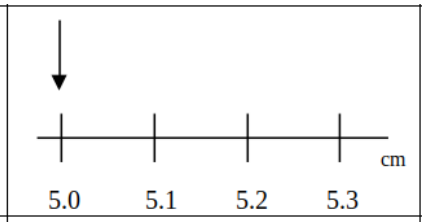
Chemistry
Ticket Out the Door
Set 5 Statistics

Name _____ Period _____

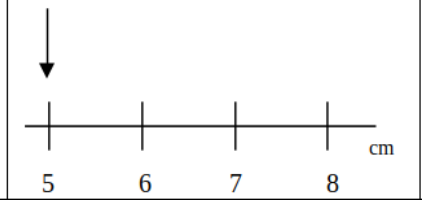
Skill 5.01 Exercise 1

Which measuring device is most accurate?

A



B



For each data set, identify the measurement taken from the most accurate measuring device.

(a) 1.0 g, 1.00 g, 1.000 g

(b) 12 cm, 123 cm, 1234 cm

(c) 1 g, 0.1 g, 0.01 g, 0.001 g

Two students did a lab to determine the density of water and obtained the following results. Which data is most precise?

A: 1.001, 1.100, 0.995, 0.999, 1.000
B: 1.000, 0.999, 1.001, 0.998, 1.005

Skill 5.02 Exercise 1

A student did an experiment to determine the density of iron and obtained the following value 7.92 g/mL. The accepted value is 7.87 g/mL. What is the percent error?

A student did an experiment to determine the density of tin and obtained the following value 7.18 g/mL. The accepted value is 7.31 g/mL. What is the percent error?

Which value above is most accurate?

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Skill 5.03 Exercise 1

Megan measured the mass of 5 skittles and obtained the following results. What is the mean (average)?

1.001 g, 1.010 g, 0.995 g, 0.999 g, 1.000 g

Skill 5.04 Exercise 1

The exam scores on a chemistry class are as follows.

What is the average for each class?

What is the standard deviation for each class?

Period 5	Period 7
95	88
87	89
66	90
100	77
78	95
98	80
77	79
85	78
78	90
82	88
88	82
99	96
90	78
68	77
78	90
90	98
88	90
67	100
88	98
65	88

Skill 5.05 Exercise 1

Calculate the precision of the exam scores for each class. The exam scores for which class are most precise?

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